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Michael G. Hluchyj

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EXAMINER

HYUN, SOON D

ART UNIT

PAPER NUMBER

2616

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/004,563

Applicant(s)

HLUCHYJ, MICHAEL G.

Examiner

Soon D. Hyun

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 3 is objected to because of the following informalities:

Claim 3, line 11 recites a limitation "capable of" which is not a positive recitation. Under MPEP 2106, page 2100-8, "language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim limitation."

Appropriate correction is required.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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3. Claims 1,2, 13 and 14 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 5, 16, and 18 of U.S.

Patent No. 6,381,238. Although the conflicting claims are not identical, they are not patentably distinct from each other because;

"A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or anticipated by, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus). " ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

Moreover, omission of a reference element whose is not needed would be obvious to one of ordinary skill in the art. It is well settled that the omission of an element and its functions is an obvious expedient if the remaining elements perform the same function as before. 168 USPQ 375 (Bd. App. 1969). In re Karlson, 163 USPQ 184 (CCPA 1963). Also note Ex parte Rainu.

Regarding claim 1, claim 18 Of Patent No. 6,381,238 encompasses the limitations of claim 1 of the instant application.

Regarding claim 2, claim 16 of Patent No. 6,381,238 encompasses the limitations of claim 3 of the instant application.

Regarding claims 13 and 14, claim 5 of Patent No. 6,381,238 encompasses the limitations of claims 13 and 14 of the instant application.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benayoun et al (U.S. Patent No. 5,959,992) in view of Li et al (U.S. Patent No. 6,195,714).

Regarding claim 1, Benayoun et al (Benayoun) discloses a system (a communication structure in FIG. 14) for connecting a packet network (a LAN A in FIG. 14) with a circuit network (EI or ISDN primary line in FIG. 14) comprising:

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a module (HUB 1480 in FIG. 14) for receiving a packet based signal (a signal from the LAN A) and transcoding the packet based signal creating a transcoded packet-based signal (transforming the signal from the LAN A to ATM cell, col. 20, lines 47-49);

a module (an interface brick 1435 in FIG. 14) for receiving the ATM cell and reassembling the signal to create a circuit based signal (a signal to be transmitted over the E1 or ISDN line, col. 20, lines 50-53);

a module (a router brick 1445 in FIG. 14) for sending the transcoded packet-based signal to the module for receiving the transcoded packet-based signal.

However, Benayoun differs from the present application in that echo cancellation is performed in a different module (an echo cancel brick 1440 in FIG. 14) other than the interface brick 1435.

Li et al (Li) teaches that a TDM peripheral (36a in FIG. 1a) in a gateway to an ATM network performs echo cancellation for circuit-based signal (col. 6, lines 17-36).

Therefore, it would have been obvious to one having ordinary skill in the art to incorporate an echo cancellation into the brick 1435 brick to perform the echo cancellation and other functions (TDM-ATM) together at the brick 1435 (a gateway).

Regarding claim 2, Benayoun discloses a system (a communication structure in FIG. 14) for connecting a circuit network (E1 or ISDN primary line in FIG. 14) with packet network (a LAN A in FIG. 14) comprising:

a module (an interface brick 1435 in FIG. 14) for receiving a circuit-based signal (a signal over E1 or ISDN primary line in FIG. 14) and performing packet adaptation to create a packet-based signal (creating an ATM cell, col. 20, lines 50-53);

a module (HUB 1480 in FIG. 14) for receiving the ATM cell (the packet-based signal) and transcoding the ATM cell to create a transcoded packet based signal (transforming the ATM cell to a signal for a LAN A, col. 20, lines 47-49);

a module (a router brick 1445 in FIG. 14) for sending the packet-based signal to the module for receiving the packet-based signal.

However, Benayoun differs from the present application in that echo cancellation is performed in a different module (an echo cancel brick 1440 in FIG. 14) other than the interface brick 1435.

Li et al (Li) teaches that a TDM peripheral (36a in FIG. 1a) in a gateway to an ATM network performs echo cancellation for circuit-based signal (col. 6, lines 17-36).

Therefore, it would have been obvious to one having ordinary skill in the art to incorporate an echo cancellation into the brick 1435 brick to perform the echo cancellation and other functions (TDM-ATM) together at the brick 1435 (a gateway).

Regarding claims 3-6, Benayoun discloses a system (a communication structure in FIG. 14) for connecting a circuit network (E1 or ISDN primary line in FIG. 14) with a packet network (a LAN A in FIG. 14) comprising:

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a packet switch fabric (a router brick 1445 in FIG. 14);
a circuit network server (an interface brick 1435 in FIG. 14) having a first port for sending and receiving circuit-based signals (a signal over E1 or ISDN primary line in FIG. 14) with the circuit network, the circuit network server having a first digital signal processor to perform packet adaptation (creating an ATM cells or creating TDM signals, col. 20, lines 50-53) and a second port for sending and receiving ATM cells (packet-based signals having packets) with the packet switch fabric; and

a packet network server (HUB 1480 in FIG. 14) having a first port for sending and receiving ATM cells (packet-based signals) with the packet switch fabric and a second port for sending and receiving packet-based signals (LAN signals for LAN A in FIG. 14) with the packet network (LAN A in FIG. 14), wherein the packet switch fabric is transferring ATM cells (packet-based signals) among the packet network server and the circuit network server, and among the circuit network server and a second circuit network server (a ISDN gateway brick 1430 in FIG t4, col. 20, lines 58-65).

However, Benayoun differs from the present application in that echo cancellation (signal processing by a second digital processor) is performed in a different module (an echo cancel brick 1440 in FIG. 14) other than the interface brick 1435.

Li et al (Li) teaches that a TDM peripheral (36a in FIG. 1a) in a gateway to an ATM network performs echo cancellation (col. 6, lines 17-36).

Therefore, it would have been obvious to one having ordinary skill in the art to incorporate an echo cancellation into the brick 1435 brick to perform the echo cancellation and other functions (TDM-ATM) together at the brick 1435 (a gateway).

Regarding claims 7 and 8, Benayoun further teaches that the switch fabric is switching module comprising switch (see FIG. 4).

Regarding claims 9 and 10, Benayoun further teaches that the switch fabric is a cell (packet) bus (see FIG. 4).

Regarding claims 11 and 12, Benayoun further discloses a voice server 1420 (signal processing server) for sending and receiving ATM cells (packet-based signals) with the packet switch fabric, the voice server having a digital processor for gateway processing on the ATM cells (col. 24, lines 33-36), wherein the packet switch fabric transfers the ATM cells to the voice server.

Regarding claim 13, Benayoun discloses a method for communicating a circuit-based signal as a packet-based signal comprising:

receiving a circuit-based signal (a signal over E1 or ISDN primary line in FIG. 14) and performing packet adaptation to, create a packet-based signal by an interface brick 1435 in FIG. 14 (creating an ATM cell, col. 20, lines 50-53);
transferring the ATM cell to a packet switch fabric (a router brick 1445 in FIG. 14);

transferring the ATM cell from the packet switch fabric to a signal processing server (a voice compression brick 1460);

transcoding the ATM cell to create a transcoded ATM cell (a compressed ATM cell) by the voice compression brick 1460;

directing the transcoded ATM cell from the voice compression brick 1460 to a Hub brick 1480 (a packet network server); and sending the transcoded ATM cell from the Hub brick 1480 to a LAN A (FIG. 14).

However, Benayoun differs from the present application in that echo cancellation is performed in a different module (an echo cancel brick 1440 in FIG. 14) other than the interface brick 1435.

Li et al (Li) teaches that a TDM peripheral (36a in FIG. 1a) in a gateway to an ATM network performs echo cancellation for circuit-based signal (col. 6, lines 17-36).

Therefore, it would have been obvious to one having ordinary skill in the art to incorporate an echo cancellation into the brick 1435 brick to perform the echo cancellation and other functions (TDM-ATM) together at the brick 1435 (a gateway).

Regarding claim 14, Benayoun further teaches that the voice compression brick 1460 transfers the transcoded ATM cell to the router brick 1445 which transfers the transcoded ATM cell to the Hub brick 1480 (col. 24, lines 17-36).

Regarding claim 15, Benayoun discloses a system (a communication structure in FIG. 14) for connecting a circuit network (E1 or ISDN primary line in FIG. 14) with a packet network (a LAN A in FIG. 14) comprising:

- a packet switch fabric (a router brick 1445 in FIG. 14);
- a circuit network server (an interface brick 1435 in FIG. 14) having a first port for sending and receiving circuit-based signals (a signal over E1 or ISDN primary line in FIG. 14) with the circuit network, the circuit network server having a first digital signal processor to perform packet adaptation (creating an ATM cells, col. 20, lines 50-53) and a second port for sending and receiving ATM cells (packet-based signals having packets) with the packet switch fabric; and

- a packet network server (HUB 1480 in FIG. 14) having a first port for sending and receiving ATM cells (packet-based signals) with the packet switch fabric and a second port for sending and receiving packet-based signals (LAN signals for LAN A in FIG. 14) with the packet network (LAN A in FIG. 14), wherein the packet switch fabric is transferring ATM cells (packet-based signals) among the packet network server and the circuit network server, and among the packet network server and a second packet network server (a ATM HUB brick 1470, col. 20, lines).

However, Benayoun differs from the present application in that echo cancellation (signal processing by a second digital processor) is performed in a different module (an echo cancel brick 1440 in FIG. 14) other than the interface brick 1435.

Li et al (Li) teaches that a TDM peripheral (36a in FIG. 1a) in a gateway to an ATM network performs echo cancellation (col. 6, lines 17-36).

Therefore, it would have been obvious to one having ordinary skill in the art to incorporate an echo cancellation into the brick 1435 brick to perform the echo cancellation and other functions (TDM-ATM) together at the brick 1435 (a gateway).

Regarding claim 16, Benayoun further teaches that the switch fabric is a switching module (FIG. 4).

Regarding claims 17 and 18, Benayoun further teaches that the switch fabric is a cell (packet) bus (see FIG. 4).

Response to Arguments

6. Applicant's arguments filed 5/24/2007 have been fully considered but they are not persuasive.

Regarding claim 1, Applicant argues (Remarks page 7) that Benayoun teaches away from the suggested combination and, even if the combination is made, the claimed invention does not result from such combination, because "Li does not teach echo-cancellation on circuit-based signals. Li teaches the TDM peripheral 36a receives the STM call, performs various functions, including echo canceling, then finally outputs an ATM call to the ATM switch fabric 22a. Li is silent regarding whether the echo

canceled is performed on the STM call or the ATM call. Therefore, even if Benayoun and Li were combined, the combination does not amount to the current invention".

Examiner disagrees. With reference to col. 6, lines 17-36, it is clearly shown that the TDM peripheral 36a has a DSP that is responsible for echo cancellation, but Li does not explicitly teach whether the echo cancellation is performed on the STM signals or ATM signals. Also, Benayoun has an adaptation section for converting the STM signals into ATM signals (col. 6, lines 36-39), i.e., the adaptation section is also silent regarding whether the echo cancellation is performed on the ATM signals. Therefore, it would have been obvious to one having ordinary skill in the art to perform the echo cancellation on the STM signals if no unexpected results can be seen from the echo cancellation on STM signals.

Regarding claims 2, 3, 13, and 15, refer to the discussion for claim 1, because Applicant argues same as claim 1 without further arguments.

For the reasons as discussed above, Examiner believes that the claim rejection is proper.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not


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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Soon D. Hyun whose telephone number is 571-272-3121. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


S. Hyun
8/1/2007


CHI PHAM
SUPERVISORY PATENT EXAMINER

8/3/07